General

Guideline Title

American College of Rheumatology/Spondylitis Association of America/Spondyloarthritis Research and Treatment Network 2015 recommendations for the treatment of ankylosing spondylitis and nonradiographic axial spondyloarthritis.

Bibliographic Source(s)

Ward MM, Deodhar A, Akl EA, Lui A, Ermann J, Gensler LS, Smith JA, Borenstein D, Hiratzka J, Weiss PF, Inman RD, Majithia V, Haroon N, Maksymowych WP, Joyce J, Clark BM, Colbert RA, Figgie MP, Hallegua DS, Prete PE, Rosenbaum JT, Stebulis JA, van den Bosch F, Yu DT, Miller AS, Reveille JD, Caplan L. American College of Rheumatology/Spondylitis Association of America/Spondyloarthritis Research and Treatment Network 2015 Recommendations for the Treatment of Ankylosing Spondylitis and Nonradiographic Axial Spondyloarthritis. Arthritis Rheumatol. 2016 Feb;68(2):282-98. [30 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Quality of evidence (High Quality, Moderate Quality, Low Quality, and Very Low Quality) and strength of recommendation (Strongly in Favor, Conditionally in Favor, Conditionally Against, and Strongly Against) ratings are defined at the end of the "Major Recommendations" field.

Recommendations for the Treatment of Patients with Active Ankylosing Spondylitis (AS)

Pharmacologic Treatment

In adults with active AS:

- The guideline authors strongly recommend treatment with nonsteroidal anti-inflammatory drugs (NSAIDs) over no treatment with NSAIDs (Low-Quality Evidence).
- The guideline authors conditionally recommend continuous treatment with NSAIDs over on-demand treatment with NSAIDs (Very Low-Quality Evidence).
- The guideline authors do not recommend any particular NSAID as the preferred choice (Moderate- to

Low-Quality Evidence; Conditional Recommendation).

In adults with active AS despite treatment with NSAIDs, the guideline authors conditionally recommend against treatment with slow-acting antirheumatic drugs (SAARDs) (Very Low- to Moderate-Quality Evidence, depending on the drug).

In adults with active AS despite treatment with NSAIDs:

- The guideline authors strongly recommend treatment with tumor necrosis factor inhibitor (TNFi) over no treatment with TNFi (Moderate-Quality Evidence).
- The guideline authors do not recommend any particular TNFi as the preferred choice, except for patients with concomitant inflammatory bowel disease or recurrent iritis (Moderate-Quality Evidence; Conditional Recommendation).

In adults with active AS despite treatment with NSAIDs and who have contraindications to TNFi, the guideline authors conditionally recommend treatment with a SAARD over treatment with a non-TNFi biologic agent (Very Low to Low-Quality Evidence, depending on the drug).

In adults with active AS despite treatment with the first TNFi used:

- The guideline authors conditionally recommend treatment with a different TNFi over adding a SAARD (Very Low-Quality Evidence).
- The guideline authors conditionally recommend treatment with a different TNFi over treatment with a non-TNFi biologic agent (Very Low-Quality Evidence).

In adults with active AS, the guideline authors strongly recommend against treatment with systemic glucocorticoids (Very Low-Quality Evidence).

In adults with AS and isolated active sacroiliitis despite treatment with NSAIDs, the guideline authors conditionally recommend treatment with locally administered parenteral glucocorticoids over no treatment with local glucocorticoids (Very Low-Quality Evidence).

In adults with AS with stable axial disease and active enthesitis despite treatment with NSAIDs, the guideline authors conditionally recommend using treatment with locally administered parenteral glucocorticoids over no treatment with local glucocorticoids. Peri-tendon injections of Achilles, patellar, and quadriceps tendons should be avoided. (Very Low-Quality Evidence).

In adults with AS with stable axial disease and active peripheral arthritis despite treatment with NSAIDs, the guideline authors conditionally recommend using treatment with locally administered parenteral glucocorticoids over no treatment with local glucocorticoids (Very Low-Quality Evidence).

Rehabilitation

In adults with active AS:

- The guideline authors strongly recommend treatment with physical therapy over no treatment with physical therapy (Moderate-Quality Evidence).
- The guideline authors conditionally recommend active physical therapy interventions (supervised exercise) over passive physical therapy interventions (massage, ultrasound, heat) (Very Low-Quality Evidence).
- The guideline authors conditionally recommend land-based physical therapy interventions over aquatic therapy interventions (Moderate-Quality Evidence).

Recommendations for the Treatment of Patients with Stable AS

Pharmacologic Treatment

In adults with stable AS, the guideline authors conditionally recommend on-demand treatment with NSAIDs over continuous treatment with NSAIDs (Very Low-Quality Evidence).

In adults with stable AS receiving treatment with TNFi and NSAIDs, the guideline authors conditionally recommend continuing treatment with TNFi alone compared to continuing both treatments (Very Low-Quality Evidence).

In adults with stable AS receiving treatment with TNFi and SAARDs, the guideline authors conditionally recommend continuing treatment with TNFi alone over continuing both treatments (Very Low-Quality Evidence).

Rehabilitation

In adults with stable AS, the guideline authors strongly recommend treatment with physical therapy over no treatment with physical therapy (Low-Quality Evidence).

Recommendations for the Treatment of Patients with Either Active or Stable AS

In adults with active or stable AS:

- The guideline authors conditionally recommend the regular-interval use and monitoring of a validated AS disease activity measure (Very Low-Quality Evidence).
- The guideline authors conditionally recommend regular-interval use and monitoring of the C-reactive protein (CRP) concentrations or erythrocyte sedimentation rate (ESR) over usual care without regular CRP or ESR monitoring (Very Low-Quality Evidence).

In adults with active or stable AS, the guideline authors conditionally recommend advising unsupervised back exercises (Moderate-Quality Evidence).

In adults with active or stable AS and spinal fusion or advanced spinal osteoporosis, the guideline authors strongly recommend against treatment with spinal manipulation (Very Low-Quality Evidence).

Recommendations for the Treatment of Patients with AS and Specific Impairments or Comorbidities

In adults with AS and advanced hip arthritis, the guideline authors strongly recommend treatment with total hip arthroplasty over no surgery (Very Low-Quality Evidence).

In adults with AS and severe kyphosis, the guideline authors conditionally recommend against elective spinal osteotomy (Very Low-Quality Evidence).

In adults with AS and acute iritis, the guideline authors strongly recommend treatment by an ophthalmologist to decrease the severity, duration, or complications of episodes (Very Low-Quality Evidence).

In adults with AS and recurrent iritis, the guideline authors conditionally recommend prescription over no prescription of topical glucocorticoids for prompt at-home use in the event of eye symptoms to decrease the severity or duration of iritis episodes (Very Low-Quality Evidence).

In adults with AS and recurrent iritis, the guideline authors conditionally recommend treatment with infliximab or adalimumab over treatment with etanercept to decrease recurrences of iritis (Very Low-Quality Evidence).

In adults with AS and inflammatory bowel disease:

- The guideline authors do not recommend any particular NSAID as the preferred choice to decrease the risk of worsening of inflammatory bowel disease symptoms (Very Low-Quality Evidence, Conditional Recommendation).
- The guideline authors strongly recommend using treatment with TNFi monoclonal antibodies over treatment with etanercept (Very Low-Quality Evidence).

Education and Preventive Care

In adults with AS, the guideline authors conditionally recommend participation in formal group or individual self-management education (Moderate-Quality Evidence).

In adults with AS, the guideline authors conditionally recommend fall evaluation and counseling (Very Low-Quality Evidence).

In adults with AS, the guideline authors conditionally recommend screening for osteopenia/osteoporosis with dual x-ray absorptiometry (DXA) scanning over no screening (Very Low-Quality Evidence).

In adults with AS and syndesmophytes or spinal fusion, the guideline authors conditionally recommend screening for osteoporosis/osteopenia with DXA scanning of the spine as well as the hips, compared to DXA scanning solely of the hip or other non-spine sites (Very Low-Quality Evidence).

In adults with AS:

> The guideline authors strongly recommend against screening for cardiac conduction defects with electrocardiograms (Very Low-Quality Evidence).
> The guideline authors strongly recommend against screening for valvular heart disease with echocardiograms (Very Low-Quality Evidence).

Recommendations for the Treatment of Patients with Nonradiographic Axial Spondyloarthritis (SpA)

In adults with active nonradiographic axial SpA despite treatment with NSAIDs, the guideline authors conditionally recommend treatment with TNFi over no treatment with TNFi (Moderate-Quality Evidence).

Definitions

Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group Grades of Evidence

High quality: Further research is very unlikely to change in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.

Very low quality: The authors are very uncertain about the estimate.

Strength of Recommendations in GRADE

Strength	Interpretation	Implications for Clinicians	Implications for Policymakers
Strongly in favor	Almost all informed patients would choose to receive the intervention	Should be accepted by most patients to whom it is offered	Should be adopted as policy
Conditionally in favor	Most informed patients would choose the intervention, but a sizable minority would not	Large role for education and shared decision-making	Requires stakeholder engagement and discussion
Conditionally against	Most informed patients would not choose the intervention, but a small minority would	Large role for education and shared decision-making	Requires stakeholder engagement and discussion
Strongly against	Most patients should not receive the intervention	Should not be offered to patients	Should be adopted as policy

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

- Ankylosing spondylitis (AS)
- Nonradiographic axial spondyloarthritis (SpA)

Other Disease/Condition(s) Addressed

- Iritis
- Hip arthritis
- Kyphosis
- Inflammatory bowel disease

Guideline Category

Counseling

Management

Rehabilitation

Treatment

Clinical Specialty

Family Practice

Internal Medicine

Physical Medicine and Rehabilitation

Rheumatology

Intended Users

Physical Therapists

Physicians

Guideline Objective(s)

To provide optimal advice on the treatment of patients with ankylosing spondylitis (AS) and nonradiographic axial spondyloarthritis (SpA) based on the evidence from the literature on benefits and harms associated with specific treatment decisions, the quality of that evidence, and patients' values and preferences

Target Population

Adults with ankylosing spondylitis (AS) or nonradiographic axial spondyloarthritis (SpA) (regardless of age at onset)

Interventions and Practices Considered

1. Pharmacologic treatment of active ankylosing spondylitis (AS)
    - Nonsteroidal anti-inflammatory drugs (NSAIDs)
    - Continuous versus on-demand NSAIDs
    - Slow-acting antirheumatic drugs (SAARDs)
    - Tumor necrosis factor inhibitor (TNFi)
    - Locally administered parenteral glucocorticoids
    - Systemic glucocorticoids (not recommended)
    - Combination treatment
2. Rehabilitation of active AS
    - Physical therapy
    - Active physical therapy interventions (supervised exercise) versus passive physical therapy interventions (massage, ultrasound, heat)
    - Land-based physical therapy interventions versus aquatic therapy interventions
3. Pharmacologic treatment of stable AS
    - On-demand NSAIDs versus continuous NSAIDs
    - TNFi alone versus TNFi plus NSAIDS or TNFi plus SAARDs
4. Rehabilitation of stable AS (physical therapy)
5. Treatment of either active or stable AS
    - Regular-interval use and monitoring of a validated AS disease activity measure
    - Regular-interval use and monitoring of the C-reactive protein (CRP) concentrations or erythrocyte sedimentation rate (ESR)
    - Unsupervised back exercises
    - Spinal manipulation (not recommended in patients with spinal fusion or advanced spinal osteoporosis)
6. Treatment of patients with AS and specific impairments or comorbidities
    - Total hip arthroplasty for hip arthritis
    - Spinal osteotomy for severe kyphosis (not recommended)
    - Treatment by an ophthalmologist for iritis
    - Infliximab or adalimumab versus etanercept to decrease recurrences of iritis
    - NSAIDs for inflammatory bowel disease (IBD)
    - TNFi versus etanercept for IBD
7. Education and preventive care
    - Group or individual self-management education
    - Fall evaluation and counseling
    - Dual x-ray absorptiometry (DXA) scanning for osteopenia/osteoporosis
    - Electrocardiograms and echocardiograms for cardiac conduction defects and valvular heart disease (not recommended)
8. Treatment of active nonradiographic axial spondyloarthritis despite treatment with NSAIDs (use of TNFi)

Major Outcomes Considered

- Mortality
- Health status
    - Symptoms (pain, stiffness, fatigue, sleep disturbance, swelling)
    - Mental health (depression, anxiety)
    - Quality of life (social interaction, sexual health, body image)
- Functional status
    - Physical function
    - Work ability
- Serious adverse events
- Ankylosing spondylitis (AS)-related morbidities

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Developing the PICO Questions

Guidelines are most useful when they provide specific actionable advice on choosing between alternative approaches in particular clinical situations. Therefore, the Grading of Recommendations Assessment, Development and Evaluation (GRADE) method advocates specifying 4 elements for each clinical question to be addressed by the recommendations: the Patient (or Population) to whom the recommendation will apply; the Intervention being considered; the Comparison (which may be "no action" or an alternative intervention); and the Outcomes affected by the intervention (PICO). These PICO elements are arranged into the questions to be addressed in the literature searches. Each PICO question then forms the basis for a recommendation.

The core group initially generated 90 PICO questions in the following 6 topic areas: pharmacologic therapy, rehabilitation, surgery, specific comorbidities, disease monitoring, and preventive care. After public comment, the group reduced the scope to 57 PICO questions (37 for ankylosing spondylitis [AS] and 20 for nonradiographic axial spondyloarthritis [SpA]) thought to address the central aspects of treatment (see online Supplements A and B of the original guideline document; see the "Availability of Companion Documents" field).

Because therapy goals of most treatments are similar, the group developed a common outcomes framework to apply across PICO questions. The framework included 5 major outcomes: mortality, health status, functional status, serious adverse events, and comorbidities (see the "Major Outcomes Considered" field). For health status and functional status, patient-reported outcomes as the primary outcome measures were used, because these more directly reflect the impact of the condition on the individual. The group considered data on surrogate outcomes (e.g., spinal range of motion) only when data on patient-reported outcomes were not available. For rehabilitation interventions, the outcomes were health status, functional status, and adverse events.

Literature Searches

Systematic literature reviews were conducted for the following domains: pharmacologic therapy, physical therapy and rehabilitation, surgery, disease activity assessment, education and preventive care, iritis, and inflammatory bowel disease. The search strategies were developed by 2 experienced medical librarians in consultation with the core group and were reciprocally reviewed (see online Supplement C of the original guideline document [see the "Availability of Companion Documents" field]). The group searched OVID Medline since 1946, PubMed since its inception in the mid-1960s, and the Cochrane Library. Search filters were applied to retrieve study designs of interest, as well as articles on safety. Searches for medications were limited to those approved by the U.S. Food and Drug Administration for any indication. The initial searches were performed in September 2013 and updated in July 2014.

For each PICO question, one literature reviewer screened titles and abstracts of retrieved articles and, when indicated, the full manuscript to identify relevant articles. A second reviewer independently screened the titles and abstracts excluded in the first review to ensure that all relevant articles were included. The group also checked prior systematic reviews. They excluded articles focused on children (ages <18 years), those in languages other than English, narrative reviews, meeting abstracts, and case reports. The literature search results appear in online Supplement D of the original guideline document

(see the "Availability of Companion Documents" field).

Number of Source Documents

- Pharmacological therapy: 88 studies included
- Rehabilitation/physical therapy: 26 studies included
- Surgical treatment: 17 studies included
- Iritis: 4 studies included
- Inflammatory bowel disease: 5 studies included
- Preventive care: 9 studies included
- Disease activity measures: 2 studies included

Refer to Supplement D of the original guideline document for diagrams of the article selection process and results (see the "Availability of Companion Documents" field).

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Grading of Recommendations Assessment, Development and Evaluation (GRADE) Working Group Grades of Evidence

High quality: Further research is very unlikely to change in the estimate of effect.

Moderate quality: Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.

Low quality: Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.

Very low quality: The authors are very uncertain about the estimate.

Methods Used to Analyze the Evidence

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Data Abstraction and Rating the Quality of Evidence

A major principle of the Grading of Recommendations Assessment, Development and Evaluation (GRADE) method is to base recommendations on the best available evidence identified through a systematic literature review and summarized in quantitative estimates of treatment effects, such as pooled mean differences or relative risks. Studies not reporting results in sufficient detail to calculate these values (e.g., those that did not include standard deviations) were not included in the evidence report. The review group synthesized these data to produce an effect estimate for each outcome, and assessed the quality of the evidence based on the risk of bias, imprecision in the estimates of effect, inconsistency among studies, indirectness (e.g., the study examined a similar but distinct patient group or intervention), and publication bias.

In GRADE, randomized controlled trials are generally assumed to provide higher-quality evidence than observational studies. Therefore, if a PICO (Patient population, a proposed Intervention, a Comparison or

alternate course of action, and an Outcome) question was addressed by one or more trials, the group only summarized data from these trials in the Evidence Report (see online Supplement E of the original guideline document [see the "Availability of Companion Documents" field]). If a PICO question was addressed only in observational studies (and not in any clinical trial), the guideline group summarized the data from the observational studies in the Evidence Report.

GRADE uses 4 categories to rate the quality of evidence: high, moderate, low, and very low. High-quality evidence, which usually comes from controlled trials, indicates that the group has high confidence in the effect estimate and future studies are thought unlikely to alter that effect. Very low-quality evidence implies very little certainty about the estimate and that the true effect may be quite different.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Deriving Recommendations

According to the Grading of Recommendations Assessment, Development and Evaluation (GRADE) method, in addition to the quality of evidence, the voting group weighed the overall balance of desirable and undesirable consequences, and the variation in how patients might value an intervention's potential benefits and risks relative to the comparison.

The strength of recommendation refers to the extent to which the panel was confident that the desirable effects of an intervention outweigh the undesirable effects. The GRADE method specifies 4 possible strengths of recommendations, each with particular implications (see the "Rating Scheme for the Strength of the Recommendations" field). Strong recommendations usually require high-quality evidence and reflect a high degree of confidence that future research will not change the results. Strong recommendations usually involve interventions sufficiently clear in their benefits and risks that almost all informed patients would accept the recommendation. A conditional recommendation is more appropriate when the quality of evidence is low or very low, or the balance between desirable and undesirable consequences of an intervention is close, or if patients vary widely in their preferences. It is important to recognize that strong recommendations in GRADE do not necessarily imply large effects or benefits, nor a priority in which interventions should be used. Another principle of GRADE is that judgments at each step are documented so that the process of recommendation development can be traced and verified.

Voting Process

Voting group members were sent the Evidence Report and asked to submit a nonbinding vote on their recommendation for each PICO (Patient, Intervention, Comparison, Outcome) question 2 weeks before the voting group meeting. At the meeting, held July 19–20, 2014 in Arlington, VA, the Evidence Report was reviewed, questions were discussed and in some cases clarified, and members voted anonymously by electronic ballots on the recommendation for each PICO question. Iterative voting and discussion continued until at least 80% of the members agreed on one of the 4 possible recommendation options.

Rating Scheme for the Strength of the Recommendations

Strength of Recommendations in Grading of Recommendations Assessment, Development and Evaluation (GRADE)

Strength	Interpretation	Implications for Clinicians	Implications for Policymakers
Strongly in	Almost all informed patients would	Should be accepted by	Should be adopted

favor	choose to receive the intervention	most patients to whom it is offered	as policy
Conditionally in favor	Most informed patients would choose the intervention, but a sizable minority would not	Large role for education and shared decision-making	Requires stakeholder engagement and discussion
Conditionally against	Most informed patients would not choose the intervention, but a small minority would	Large role for education and shared decision-making	Requires stakeholder engagement and discussion
Strongly against	Most patients should not receive the intervention	Should not be offered to patients	Should be adopted as policy

Cost Analysis

Although the Grading of Recommendations, Assessment, Development and Evaluation (GRADE) method allows for considerations of costs in making recommendations, the American College of Rheumatology (ACR) does not routinely do so, and the guideline authors did not explicitly consider costs in these recommendations.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

Prior to publication, these recommendations were reviewed and endorsed by the American College of Rheumatology (ACR) Committee on Quality of Care, as well as the Boards of Directors of the ACR, Spondylitis Association of America (SAA), and the Spondyloarthritis Research and Treatment Network (SPARTAN).

Public comments and the author response to public comments are available from the ACR Web site .

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

The goals of treatment of ankylosing spondylitis and nonradiographic axial spondyloarthritis are to reduce symptoms, maintain spinal flexibility and normal posture, reduce functional limitations, maintain work

ability, and decrease disease complications.

Refer to the "Evidence and Rationale" sections following each recommendation in the original guideline document for discussions of the potential benefits and harms of specific interventions.

Potential Harms

Side effects of medications

Refer to the "Evidence and Rationale" sections following each recommendation in the original guideline document for discussions of the potential harms of specific interventions.

Qualifying Statements

Qualifying Statements

- Guidelines and recommendations developed and/or endorsed by the American College of Rheumatology (ACR) are intended to provide guidance for particular patterns of practice and not to dictate the care of a particular patient. The ACR considers adherence to these guidelines and recommendations to be voluntary, with the ultimate determination regarding their application to be made by the physician in light of each patient's individual circumstances. Guidelines and recommendations are intended to promote beneficial or desirable outcomes but cannot guarantee any specific outcome. Guidelines and recommendations developed or endorsed by the ACR are subject to periodic revision as warranted by the evolution of medical knowledge, technology, and practice.
- The ACR is an independent, professional, medical and scientific society which does not guarantee, warrant, or endorse any commercial product or service.
- These guidelines are meant to apply to typical patients, rather than exceptional cases. Treatment decisions should always involve education of the patient as to anticipated benefits and potential harms. In instances when a particular medication is not recommended, it does not imply that it is contraindicated.
- The recommendations are limited in that the guideline authors did not examine the full range of treatment alternatives for patients with active peripheral arthritis or enthesitis, advanced options for patients who do not respond to first- and second-level systemic treatments, use of analgesics, or the use of imaging in disease monitoring.
- For some questions, including most of those for patients with nonradiographic axial spondyloarthritis (SpA), the guideline authors did not identify any directly relevant data from the literature. In these cases, recommendations were based on the experience and knowledge of voting panel members, and using indirect evidence from other conditions. While there was substantial evidence for some interventions, particularly for pharmacologic treatments, there were few studies of treatment strategies or the sequencing of medications in the event of contraindications or nonresponse, or of the efficacy of different strategies of monitoring disease activity and response.
- While these recommendations can address common clinical situations, all treatment decisions must be individualized, with consideration of the unique aspects of each patient's presentation, medical history, and preferences. Treatment recommendations also cannot address all permutations that might affect treatment decisions. Application of these recommendations therefore requires careful assessment and sound clinical judgment.

Implementation of the Guideline

Description of Implementation Strategy

In addition to the original guideline document, these recommendations will be disseminated through posting on the American College of Rheumatology (ACR) Web site (www.rheumatology.org/Practice-Quality/Clinical-Support/Clinical-Practice-Guidelines/Axial-Spondyloarthritis), and through the membership of the Spondylitis Association of America (SAA) and the Spondyloarthritis Research and Treatment Network (SPARTAN). The main potential barrier to implementation of these guidelines is limited access to care. Financial barriers to rumor necrosis factor inhibitor (TNFi) are substantial, even for patients with medical insurance. Philanthropic organizations and pharmaceutical patient-assistance programs can in some cases help supply or defray the costs of TNFi. Many community-based health centers and public hospitals either support or can refer patients to physical therapists at reduced costs. Public hospitals also provide orthopedic surgery services to patients unable to pay for care.

Implementation Tools

Patient Resources

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Ward MM, Deodhar A, Akl EA, Lui A, Ermann J, Gensler LS, Smith JA, Borenstein D, Hiratzka J, Weiss PF, Inman RD, Majithia V, Haroon N, Maksymowych WP, Joyce J, Clark BM, Colbert RA, Figgie MP, Hallegua DS, Prete PE, Rosenbaum JT, Stebulis JA, van den Bosch F, Yu DT, Miller AS, Reveille JD, Caplan L. American College of Rheumatology/Spondylitis Association of America/Spondyloarthritis Research and Treatment Network 2015 Recommendations for the Treatment of Ankylosing Spondylitis and Nonradiographic Axial Spondyloarthritis. Arthritis Rheumatol. 2016 Feb;68(2):282-98. [30 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2016 Feb

Guideline Developer(s)

American College of Rheumatology - Medical Specialty Society

Spondylitis Association of America - Nonprofit Organization

Spondyloarthritis Research and Treatment Network - Professional Association

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Guideline Committee

Core Leadership Group

Literature Review Group

Voting Panel

Composition of Group That Authored the Guideline

Authors: Michael M. Ward, MD, MPH, National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH, Bethesda, Maryland; Atul Deodhar, MD, Oregon Health & Science University, Portland; Elie A. Akl, MD, MPH, PhD, American University of Beirut, Beirut, Lebanon, and McMaster University, Hamilton, Ontario, Canada; Andrew Lui, PT, DPT, University of California, San Francisco; Joerg Ermann, MD, Brigham and Women's Hospital, Boston, Massachusetts; Lianne S. Gensler, MD, University of California, San Francisco; Judith A. Smith, MD, PhD, University of Wisconsin, Madison; David Borenstein, MD, Arthritis and Rheumatism Associates, Washington, DC; Jayme Hiratzka, MD, Oregon Health & Science University, Portland; Pamela F. Weiss, MD, MSCE, Children's Hospital of Philadelphia and University of Pennsylvania, Philadelphia; Robert D. Inman, MD, University of Toronto, Toronto, Ontario, Canada; Vikas Majithia, MD, MPH, University of Mississippi Medical Center, Jackson; Nigil Haroon, MD, PhD, DM, University of Toronto, Toronto, Ontario, Canada; Walter P. Maksymowych, MD, FRCPC, University of Alberta, Edmonton, Alberta, Canada; Janet Joyce, MLIS, American College of Rheumatology, Atlanta, Georgia; Bruce M. Clark, RPT, Vancouver, British Columbia, Canada; Robert A. Colbert, MD, PhD, National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH, Bethesda, Maryland; Mark P. Figgie, MD, Hospital for Special Surgery, New York, New York; David S. Hallegua, MD, Cedars-Sinai Medical Center, Beverly Hills, California; Pamela E. Prete, MD, VA Long Beach Medical Center, Long Beach, California, and University of California, Irvine; James T. Rosenbaum, MD, Oregon Health & Science University and Legacy Devers Eye Institute, Portland; Judith A. Stebulis, MD, University of Massachusetts, Worcester; Filip van den Bosch, MD, PhD, University of Ghent, Ghent, Belgium; David T. Y. Yu, MD, University of California, Los Angeles; Amy S. Miller, American College of Rheumatology, Atlanta, Georgia; John D. Reveille, MD, University of Texas Health Sciences Center at Houston; Liron Caplan, MD, PhD, Denver VA Medical Center, Denver, Colorado, and University of Colorado, Aurora

Financial Disclosures/Conflicts of Interest

Adhering to American College of Rheumatology (ACR) policy, at least 51% of each guideline group was required to have no relevant conflicts of interest. The principal investigator and literature review

committee leader were also required to have no relevant conflicts of interest.

Dr. Deodhar has received consulting fees, speaking fees, and/ or honoraria from Abbott, Amgen, Pfizer, and Novartis (less than $10,000 each) and from AbbVie and UCB (more than $10,000 each), and research grants from Novartis, UCB, Johnson & Johnson, and Amgen. Dr. Ermann has received honoraria from AbbVie (less than $10,000) for Advisory Board service. Dr. Gensler has received consulting fees, speaking fees, and/or honoraria from AbbVie, UCB, and Amgen (less than $10,000 each) and research grants from Celgene and AbbVie. Dr. Borenstein has received consulting fees, speaking fees, and/or honoraria from Iroko and Abbott (less than $10,000 each) and honoraria from Clinical Care Options (more than $10,000). Dr. Inman has received consulting fees, speaking fees, and/or honoraria from AbbVie, Abbott, Janssen, Amgen/Pfizer, UCB, Novartis, and Celgene (less than $10,000 each). Dr. Majithia has received consulting fees, speaking fees, and/or honoraria from GlaxoSmithKline (less than $10,000). Dr. Haroon has received consulting fees, speaking fees, and/ or honoraria from AbbVie, Abbott, Amgen, Janssen/Johnson & Johnson/ Centocor/Ortho Biotech Products, Janssen Biotech, Celgene, UCB, and Pfizer (less than $10,000 each). Dr. Maksymowych has received consulting fees, speaking fees, and/or honoraria from Abb-Vie, UCB, Pfizer, Amgen, Janssen, and Augurex (less than $10,000 each) and receives licensing fees and royalties from Augurex for the 14-3-3 biomarker. Mr. Clark has received consulting fees, speaking fees, and/or honoraria from AbbVie, Abbott, Amgen, Janssen, and Bristol-Myers Squibb (less than $10,000 each). Dr. Figgie has received consulting fees, speaking fees, and/or honoraria from Medtronic and Ethicon (less than $10,000 each). Dr. Hallegua has received consulting fees, speaking fees, and/or honoraria from AbbVie, Q-Med AB, UCB, Bristol-Myers Squibb, Centocor, Amgen, IDEC, Xoma, Novartis, Roche, Isis, Pharmacia, La Jolla Pharma, Genentech, Proctor & Gamble, Genelabs, MedImmune, Human Genome Sciences, Array Biopharma, and Cipher (less than $10,000 each). Dr. Prete has received consulting fees, speaking fees, and/or honoraria from Abbott (less than $10,000). Dr. Rosenbaum has received consulting fees, speaking fees, and/or honoraria from UCB, Regeneron, Xoma, Lux Biosciences, Elan, Allergan, Santen, Teva, Novartis, Sanofi, AbbVie, Amgen, Bristol-Myers Squibb, Celgene, and Genentech (less than $10,000 each) and is a contributor to UpToDate. Dr. van den Bosch has received consulting fees, speaking fees, and/or honoraria from Abbe-Vie, Bristol-Myers Squibb, Celgene, Janssen/Johnson & Johnson, Pfizer, and UCB (less than $10,000 each). Dr. Reveille has received consulting fees, speaking fees, and/or honoraria from Abbott and UCB (less than $10,000 each).

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the American College of Rheumatology (ACR) Web site .

Availability of Companion Documents

The following are available:

American College of Rheumatology/Spondylitis Association of America/Spondyloarthritis Research and Treatment Network 2015 recommendations for the treatment of ankylosing spondylitis and nonradiographic axial spondyloarthritis. Supporting information (online supplements). Available from the Arthritis & Rheumatology Web site .

American College of Rheumatology policy and procedure manual for clinical practice guidelines. 2015 Jan. 80 p. Available from the American College of Rheumatology (ACR) Web site .

Patient Resources

Fast facts for patients are available from the American College of Rheumatology (ACR) Web site .

NGC Status

This NGC summary was completed by ECRI Institute on February 24, 2017. The information was verified by the guideline developer on April 3, 2017.

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